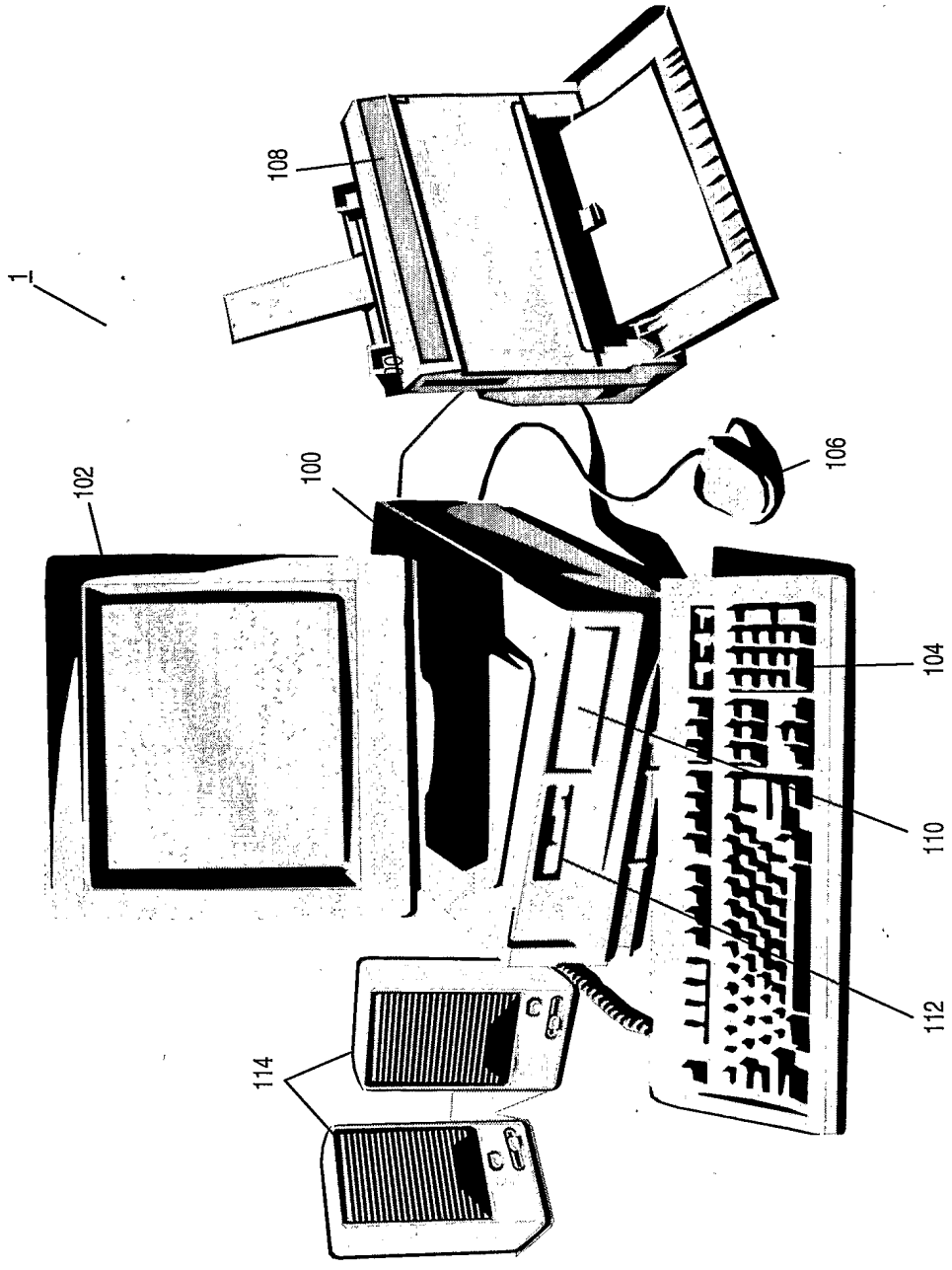

Figure 1

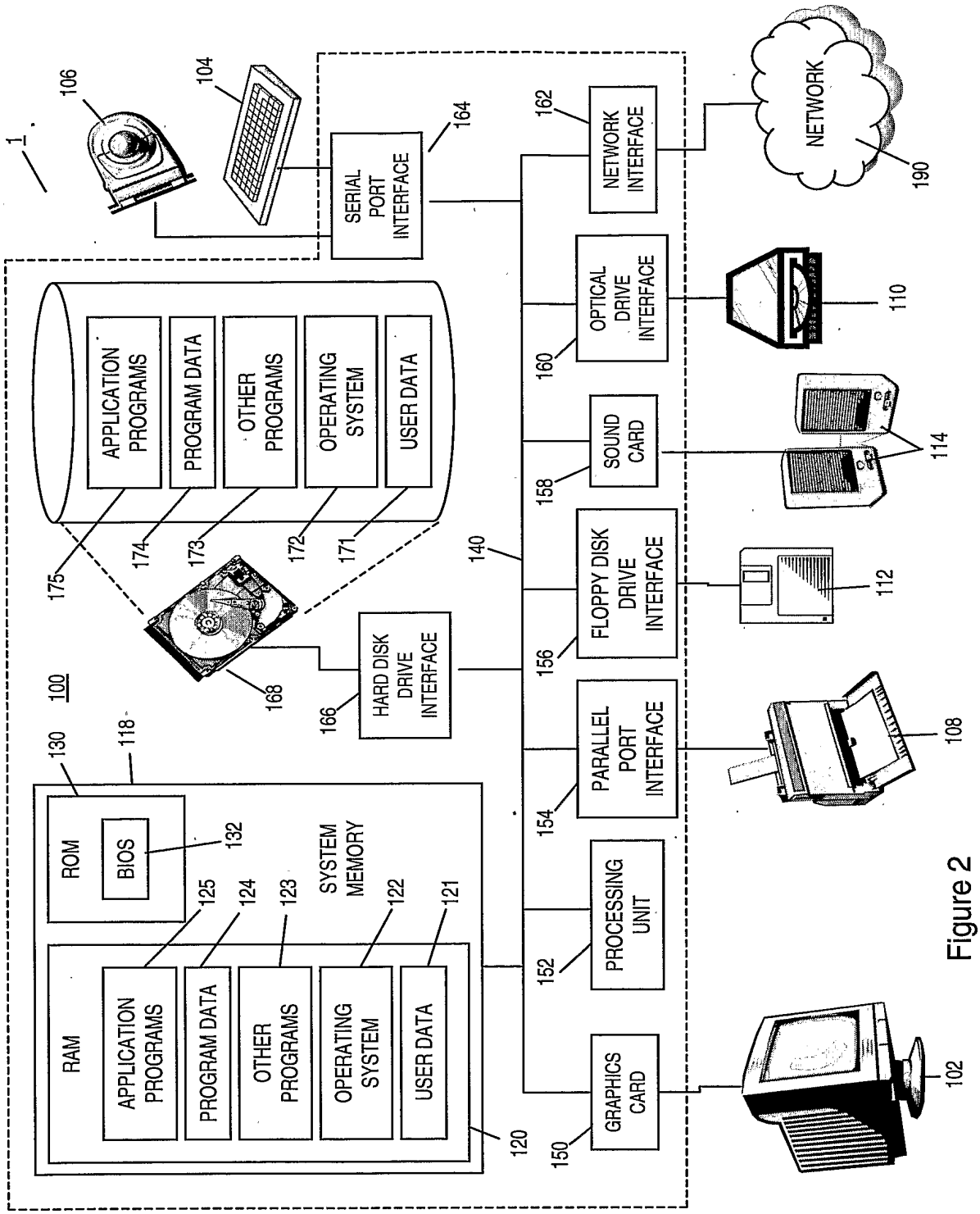
1
100
102
104
106
108
110
112
114
118
120
121
122
123
124
125
130
132
140
150
152
154
156
158
160
162
164
166
168
171
172
173
174
175
190
RAM
APPLICATION PROGRAMS
PROGRAM DATA
OTHER PROGRAMS
OPERATING SYSTEM
USER DATA
SYSTEM MEMORY
ROM
BIOS
PROCESSING UNIT
GRAPHICS CARD
PARALLEL PORT INTERFACE
FLOPPY DISK DRIVE INTERFACE
HARD DISK DRIVE INTERFACE
SOUND CARD
OPTICAL DRIVE INTERFACE
NETWORK INTERFACE
SERIAL PORT INTERFACE
NETWORK

Figure 2

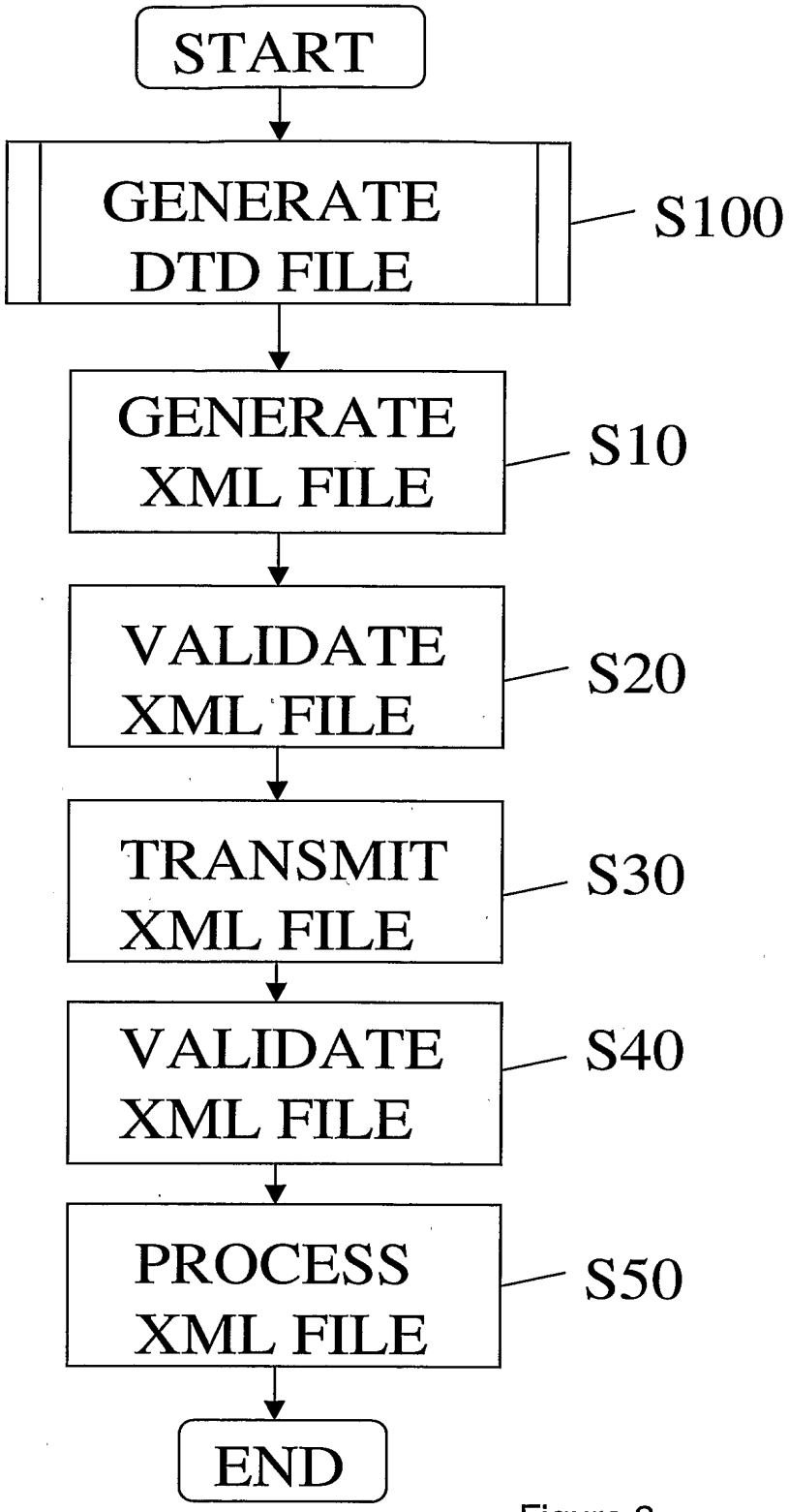
START
GENERATE DTD FILE
S100
GENERATE XML FILE
S10
VALIDATE XML FILE
S20
TRANSMIT XML FILE
S30
VALIDATE XML FILE
S40
PROCESS XML FILE
S50
END

Figure 3

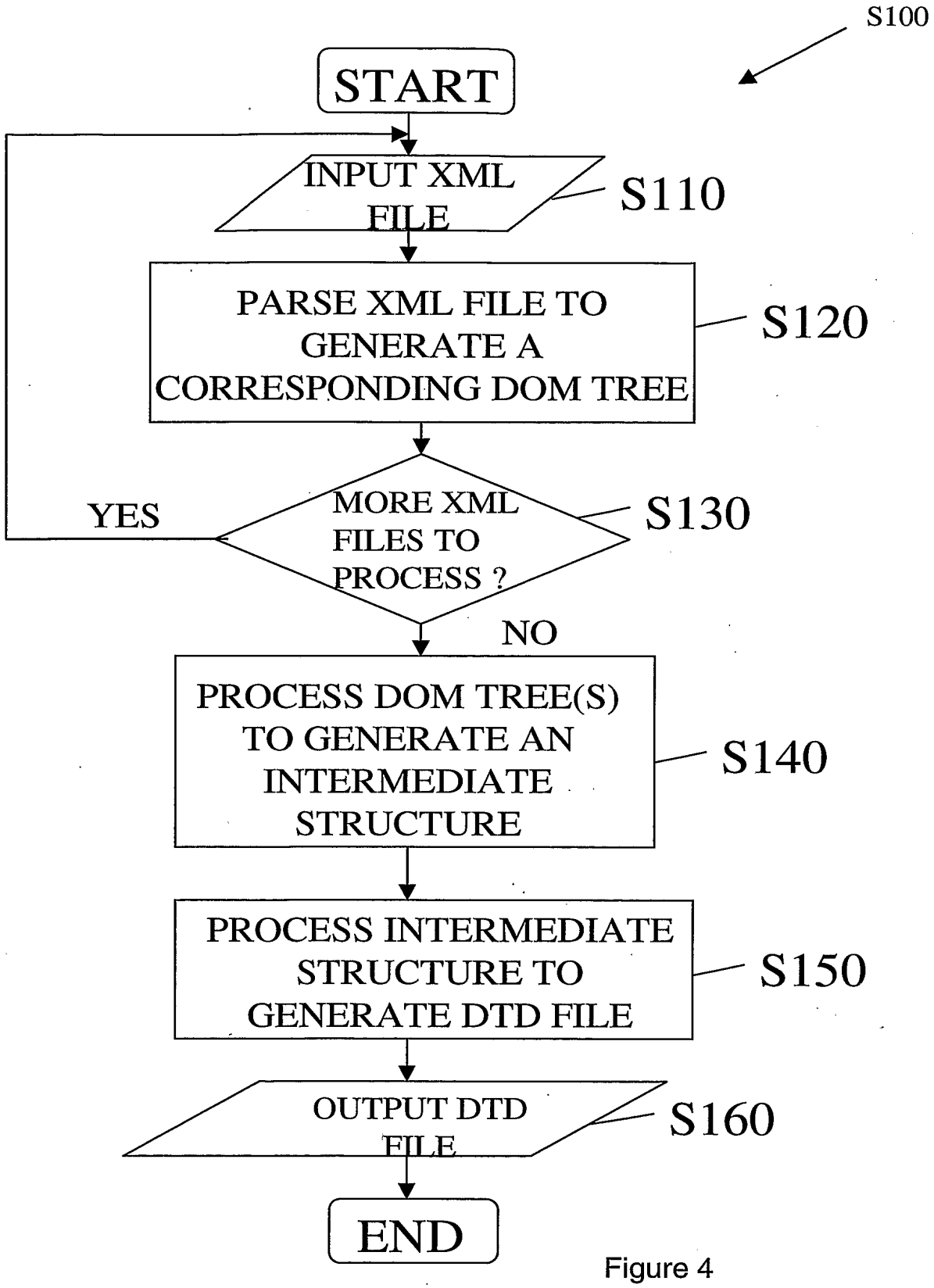
S100
START
INPUT XML FILE
S110
PARSE XML FILE TO GENERATE A CORRESPONDING DOM TREE
S120
MORE XML FILES TO PROCESS ?
S130
YES
NO
PROCESS DOM TREE(S) TO GENERATE AN INTERMEDIATE STRUCTURE
S140
PROCESS INTERMEDIATE STRUCTURE TO GENERATE DTD FILE
S150
OUTPUT DTD FILE
S160
END

Figure 4

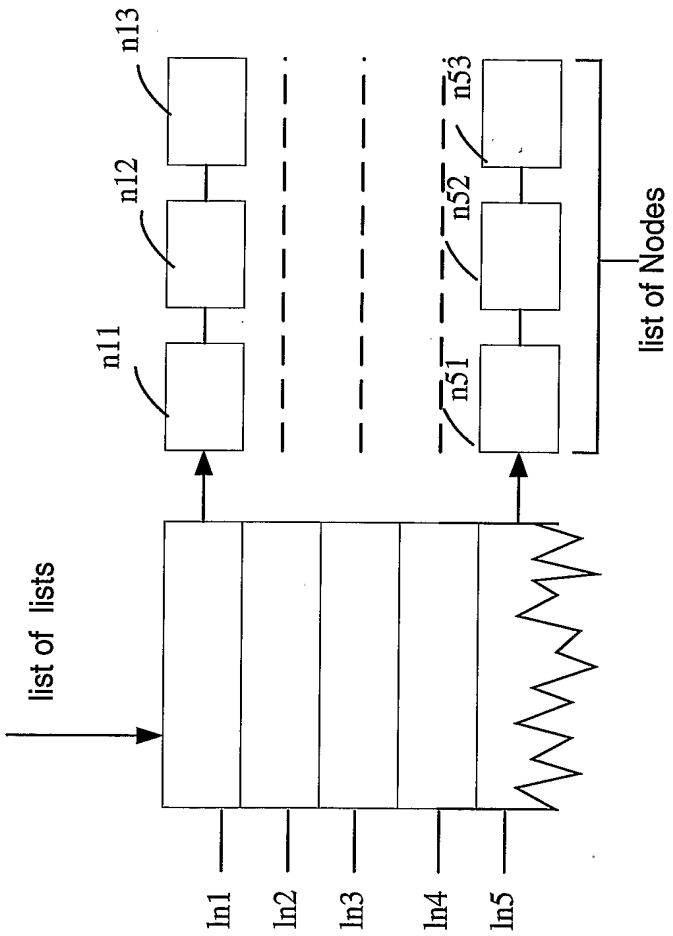
list of lists
ln1
ln2
ln3
ln4
ln5
n11
n12
n13
n51
n52
n53
list of Nodes

Figure 5

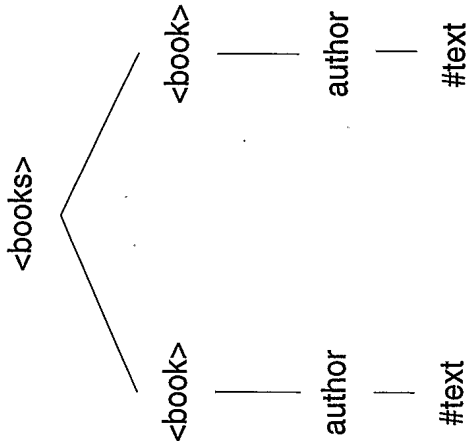

Figure 6

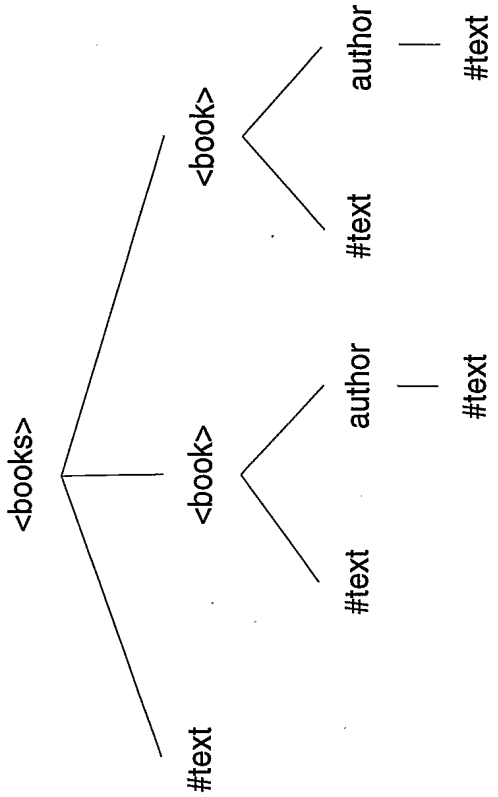

Figure 7

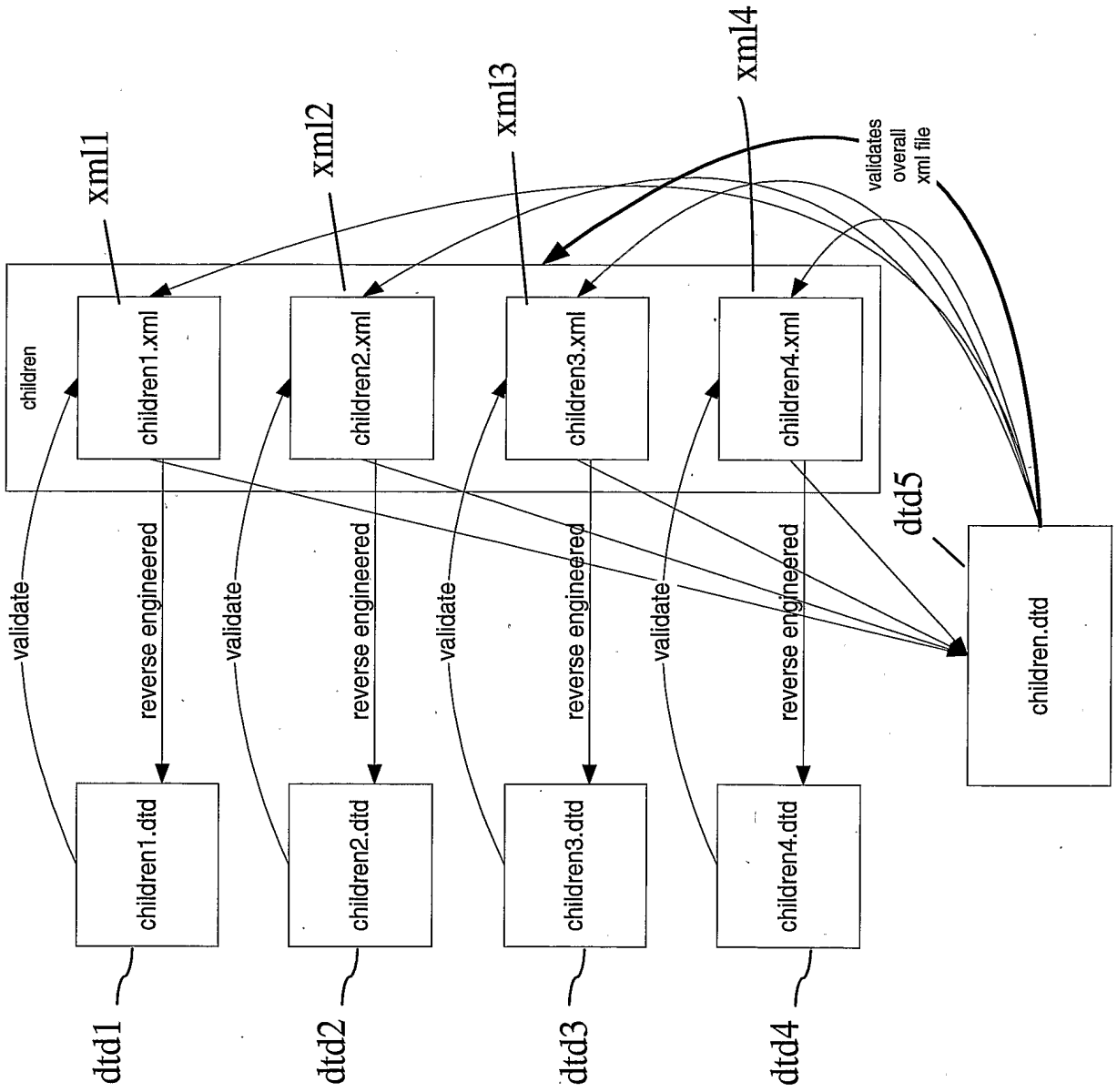
xml1
xml2
xml3
xml4
validates overall xml file
children
children1.xml
children2.xml
children3.xml
children4.xml
validate
reverse engineered
children1.dtd
children2.dtd
children3.dtd
children4.dtd
dtd1
dtd2
dtd3
dtd4
dtd5
children.dtd

Figure 8

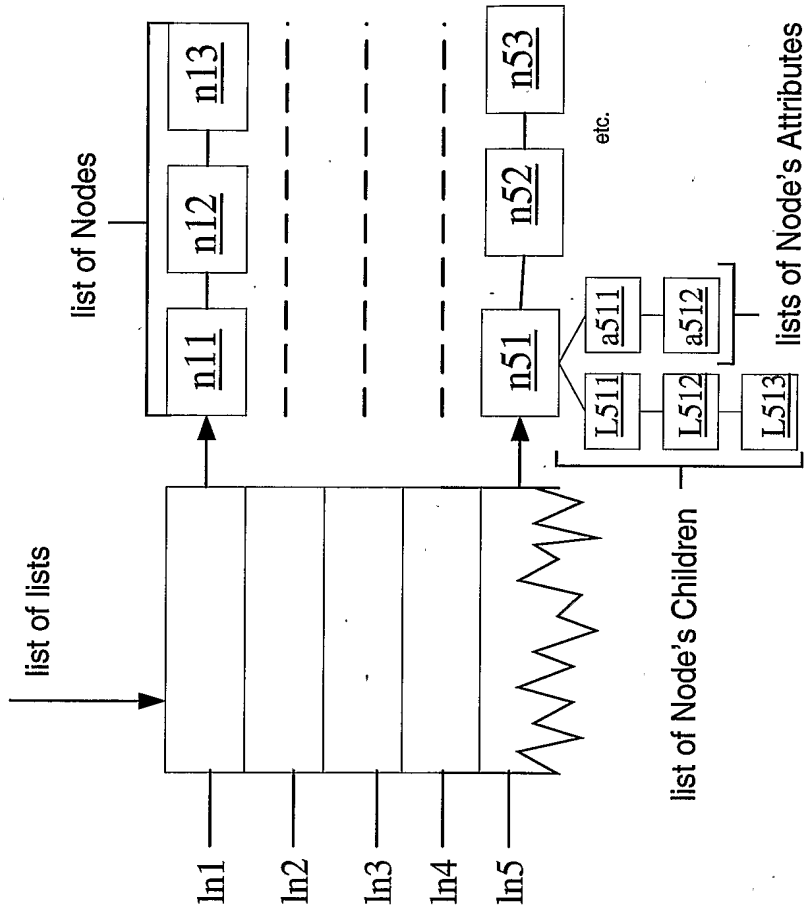
list of lists
ln1
ln2
ln3
ln4
ln5
list of Nodes
n11
n12
n13
n51
n52
n53
etc.
list of Node's Children
L511
L512
L513
a511
a512
lists of Node's Attributes

Figure 9

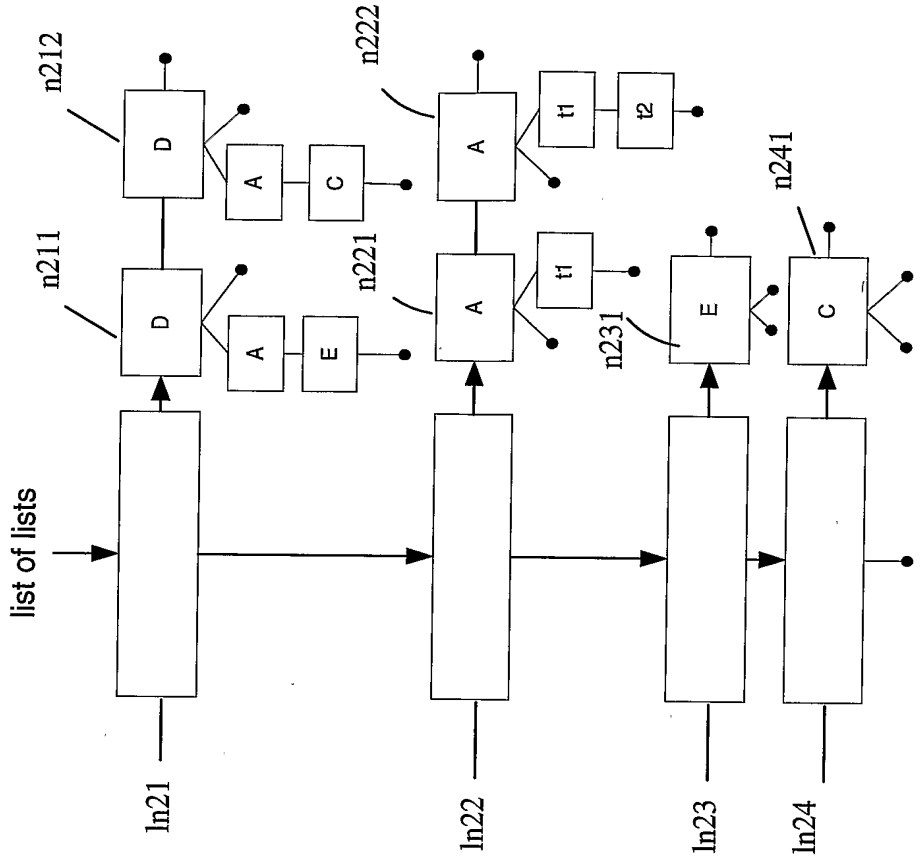

Figure 10c

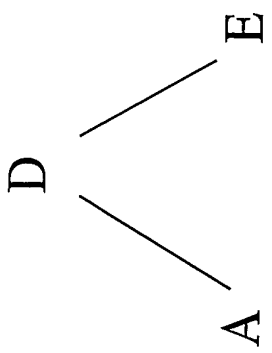

Figure 10a

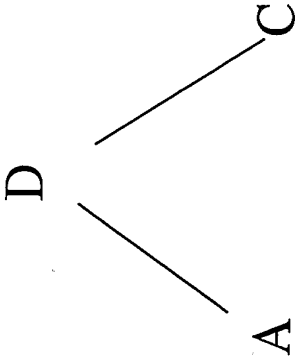

Figure 10b

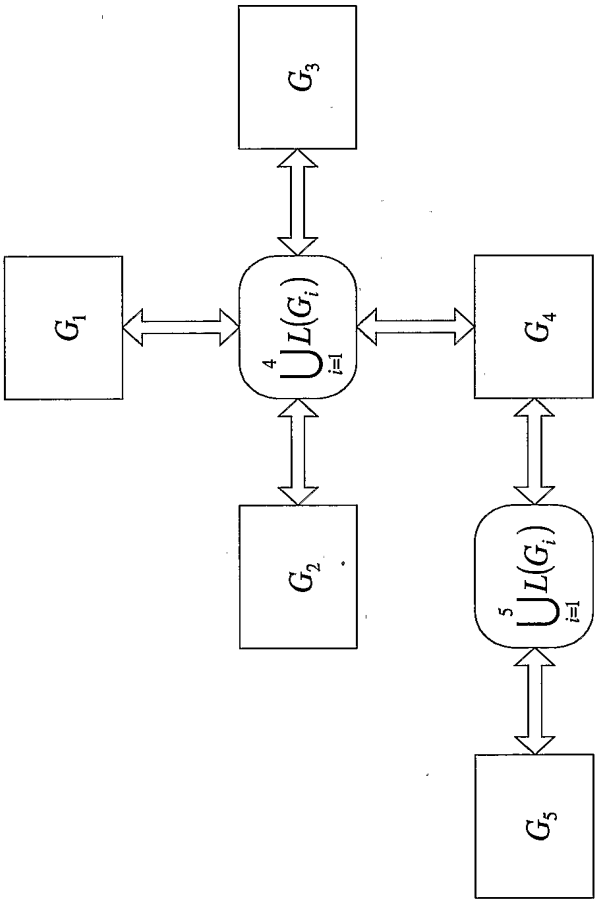

Figure 11